

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL SEARCH REPORT**

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>OPP040029KR</b>	<b>FOR FURTHER ACTION</b>	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. <b>PCT/KR 2004/002766</b>	(Earliest) Priority Date (day/month/year) 31 October 2003 (31.10.2003)	International filing date (day/month/year) 29 October 2004 (29.10.2004)
Applicant <b>ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE</b>		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b.  With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see continuation of this first sheet.

2.  Certain claims were found unsearchable (see continuation of this first sheet)

3.  Unity of invention is lacking (see continuation of this first sheet)

4. With regard to the title,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

5. With regard to the abstract,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2(b), by this Authority as it appears in the continuation of this first sheet. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

a. the figure of the drawings to be published with the abstract is Figure No. 4

as suggested by the applicant.

as selected by this Authority, because the applicant failed to suggest a figure.

as selected by this Authority, because this figure better characterizes the invention.

b.  none of the figures is to be published with the abstract.

**Continuation of first sheet****Continuation No. IV:****Text of the abstract****(Continuation of item 5 of the first sheet)**

Disclosed are a subscriber station authentication method, a protocol configuration method, and a device thereof in a wireless portable Internet system. In the subscriber station authentication method, and authentication mode between a subscriber station (10) and a base station (20) is negotiated, and the authentication mode is negotiated by the base station (20) according to the authentication mode negotiation. The authentication modes include an authentication mode based on the IEEE 802.16 privacy standard protocol and an authentication mode based on the standardized authentication protocol of the upper layer. Authentication is performed by the base station (10) in the case of the authentication mode based on the IEEE 802.16 privacy standard protocol, and the authentication is performed through message transmission using a diameter protocol between a base station (10) and an authentication server (40) in the case of the authentication mode based on the standardized authentication protocol of the upper layer.

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## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/KR 2004/002766

## A. CLASSIFICATION OF SUBJECT MATTER

IPC<sup>7</sup>: H04Q 7/38, H04L 9/32, H04L 29/06

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC<sup>7</sup>: H04L, H04Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
WPI, EPDOC, Elsevier, IEE, I3E, IEEExplore, Research Disclosure, INSPEC

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 1999/048318 A (SIEMENS AG) 23 September 1999 (23.09.1999) <i>figures, abstract, page 7, line 36 - page 9, line 13.</i>	1-24
X	EP 1 343 345 A2 (MICROSOFT CORP) 10 September 2003 (10.09.2003) <i>figures, abstract, paragraphs 37-45.</i>	1-24

 Further documents are listed in the continuation of Box C. See patent family annex.

- \* Special categories of cited documents:
- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search  
14-July-2005 (14.07.2005)Date of mailing of the international search report  
29-July-2005 (29.07.2005)Name and mailing address of the ISA/ AT  
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**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

International application No.  
PCT/KR 2004/002766

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP A2 1343345	2003-09-10	US A1 2003166397	2003-09-04
WO A 19990483 18		none	